

## THE COMPARISON OF PERSONALITY TRAITS AND HAPPINESS OF VEGETARIANS AND NON-VEGETARIANS

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### Abstract

One of the major issues in psychology is individuals' personality traits, and happiness is one of the human basic needs and an effective factor on lifespan. Also, vegetarianism and its positive effects on body and mind has been a new study field all around the world. So, the purpose of this study was to determine the difference between vegetarians and non-vegetarians in regard to personality traits and happiness. The research method was descriptive of comparison kind. The data were collected from 150 vegetarians and 150 non-vegetarians of both sexes via cluster sampling. Vegetarians were members of Vegetarianism Association in north of Iran and non-vegetarians were the employees and students of Azad universities in four northern cities of Iran, namely, Sari, Babol, Chaloos, and Ramsar. The two groups were matched in age and education level. The tools for gathering data were NEO-FFI Questionnaire (short form) and Oxford Happiness Questionnaire. Also, data were analyzed using descriptive statistics and the independent t-test. Findings revealed that the happiness of vegetarians was significantly higher than non-vegetarians and female vegetarians had more happiness than male vegetarians ( $p < 0.05$ ). Also, about the personality traits, Results of analysis of t-test showed that while there was no significant difference in regard to extraversion, agreeableness and conscientiousness among two groups ( $p < 0.05$ ), openness average in vegetarians and neuroticism average in non-vegetarians were higher and indicated a significant difference between two groups ( $p < 0.05$ ). Considering the results of study, a well-planned vegetarian diet may have public health importance and can help nutrition professionals in developing strategies to work with those who want or need to change diet habits and seek for real happiness through healthy nutrition.

**Keywords:** Vegetarian, Non-Vegetarian, Neuroticism, Extraversion, Openness, Agreeableness, Conscientiousness, Happiness.

### 1. INTRODUCTION

Human acquires special behaviors under the effect of different internal and environmental factors and accordingly has a unique personality. For this reason, one of the main issues in psychology is individual's personality traits. As well, happiness is a mental or emotional state of well-being characterized by positive or pleasant emotions ranging from contentment to intense joy (Sabet & LotfiKashani, 2010). Happy individuals usually assess their skills better and recall the positive events more than negative ones and have a better decision making in their life programs (Carr, 2004).

Food also, has an undeniable impact on body and mind. For being prosperous, one should have healthy body and peaceful mind (Ne'mati, 2010). One way of having natural and healthy food is vegetarianism which has been widespread these days (Traugh, 2010). Vegetarianism is the practice of abstaining from the consumption of meat – red meat, poultry, seafood and the flesh of any other animal; it may also include abstention from by-products of animal slaughter (Deckers, 2009). Most of vegetarian diets which consists raw vegetable and fruit, have strong healing property that is necessary for human health (Ne'mati, 2010).

Changes in nutrition during recent decades have played a crucial role in increasing psychiatric disorders (Miller, 2010). People tend to consume foods containing a large amount of sugar and fat and avoid fresh food, suffer from depression and memory problems (Traugh, 2010). Sugary diet destroys B vitamins supply in the body and makes individuals to be anxious and experience unpleasant emotions (Fox, 2006). With vegetarian diet and having joyful body and mind, the human needs no alcohol drinks, drugs or other opium (Ne'mati, 2010). Besides, vegetarianism has many social consequences. Safe life, intact environment, healthy food and improvement of economic status, all help to have a happy morale (Marcus, 2008). When humans have a happy mood, interact better with each other and it decreases irrational disputes, then humans are seeking the welfare in life and enjoying life in peace (Miller, 2010).

Regarding personality traits, one model is Five Factor Model of Personality that has been introduced by Mac Crae and Costa in 1987. This model divides individuals' personality into five dimensions. These dimensions are: Neuroticism (tending to experience anxiety, tension, hostility, shyness, irrational thought, depression and low self-esteem), Extraversion (paying attention to external world and people and enjoy interacting to others), Openness (active quest for taking others' experiences, being curious, love to art, vivid imagination and innovation), Agreeableness (tending to respect people and having agreement and harmony with them) and Conscientiousness (the ability in organization, stability, control and motivation in goal-oriented behaviors and tendency to merit, order, trying for development, self-control and reflection) MacCrae & Costa, 1987).

It seems that individual differences of feeling happiness are related to personality differences which can arise from genetic factors. In other words, happiness is a personality variable that can consider for it a biological base (Mirzaee & Hatami, 2010). Furthermore, Young (1951) believed extraverted people feel enjoyment, happiness, experiences continuity and new senses (Bobic, Cvijetic, Colic Baric, & Satalic, 2012). In addition, the findings in Amani et al. research showed personality traits and emotional states are related together. For example, extraversion traits are associated to positive affections and neuroticism traits are related to negative affections (Amani, Shiri, & Kabir, 2010).

Although studies consider other effective factors such as individuals' social and economical status in being happy but personality variable has been considered too (Lu & Shih, 1997). Likewise a comparison study about personality and happiness between groups from Japan, china and Britain indicated there are correlation between extraversion, joy seeking and social activities (AhangaranSarokalani, 2008). In the research by AzimzadeParsi et al. (2011) the components of Five Factor Model of personality and happiness conducted among Payam Noor University students, results showed happiness had positive correlation with conscientiousness and negative correlation with neuroticism. Beezhold et al. (2010) revealed that the positive effect of vegetarianism and the abstinence of all kinds of meat indicated a better mood among vegetarians. The results referred to the high intake of anti oxide in vegetable food. Wrye, (2007) argues that positive emotion and happiness benefit your long-term health.

In *Happy People Live Longer*, Frey reports that happy people live 14% longer, increasing longevity 7.5 to 10 years (Frey, 2011). Some of the investigators, suggested happiness is important for being prosperous (Rayan & Deci, 2001). A 2010 study compared a group of vegetarian and meat-eating Seventh-day Adventists in which vegetarians scored lower on depression tests and had better mood profiles (Beezhold et al., 2010). In *Mortality in British vegetarians*, a similar conclusion is drawn: "British vegetarians have low mortality compared with the general population (Key, Appleby, Davey, Allen, Spencer & Travis, 2003). In another study in Iran, Yousefi (2012) compared spiritual quotient and mental health in raw vegetarians and people with common nutrition. Her findings showed the two variables significantly had no difference, but mental health was higher in raw vegetarians than people with common nutrition.

As there were very few published reports with subject of vegetarianism, personality traits and happiness, and because the results of previous studies showed contradictive findings, this study carried out to answer two main questions:

1. Is there any difference in personality traits of vegetarians and non-vegetarians?
2. Is there any difference in happiness of vegetarians and non-vegetarians?

## 2. METHODOLOGY

The research method was descriptive of comparison kind, which involved two samples (vegetarians & non-vegetarians). The statistical population was all vegetarians and non-vegetarians in Mazandaran province of Iran. 150 vegetarians (59 men and 91 women) and 150 non-vegetarians (73 men and 77 women) were selected via cluster sampling in this way: First, from 17 cities of Mazandaran, 4 cities (Sari, Babol, Chaloos & Ramsar) were chosen by drawing lots. Thereafter, several meetings were administered about natural nutrition in mentioned cities that the participants were vegetarians. The vegetarianism duration of subjects was from 1 to 20 years. Also, 150 non-vegetarian individual were selected from Azad Universities of the four mentioned cities by convenience sampling method. The two groups were matched considering age and education level. The range of age was 20 to 60 and the average of 30 to 40 was more frequent. Among vegetarians 60.67% were women and 39.33% were men. For non-vegetarians the women were 51.33% and the men were 48.67%.

### 2.1. NEO-FFI Questionnaire

Personality traits were assessed by the short form of NEO-FFI Q, one of the most used questionnaires developed by MacCrae and Costa in 1987. NEO-FFI Q has five scales: Neuroticism, Extraversion, Openness, Agreeableness and Conscientiousness, covered by 60 items. Each scale is measured by 12 statements. The subjects rated each statement on a five-point scale (0 = strongly disagree, 4 = strongly agree). Reliability of the questionnaire and internal consistency of each scale was previously validated by Mac Crae and Costa (1992). The long form of questionnaire has been validated in Iran by GarousiFarashi et al. (2006) and the results were similar to the original one. Short form of this questionnaire has not been validated in Iran but the results of studies by MacCrea and Costa (1992) showed the correlation of five scales in short form and long form are from 0.77 to 0.92. Also, internal consistency of sub-scales has been estimated from 0.68 to 0.86.

### 2.2. Oxford Happiness Questionnaire

The other instrument used in this study was Oxford Happiness Questionnaire (OHQ) which was completed by 300 vegetarians and non-vegetarians of both genders. OHQ has 29 statements and measures individuals' happiness. The theoretical base of this questionnaire is Argyle and Crossland's (1987) definition of happiness. They have known happiness as a construct with three important parts: a) frequency and the degree of positive emotion b) average of satisfaction level during an episode c) lack of negative feeling. This questionnaire has been developed by Argyle in 1989 based on Beck's Depression Inventory. Each statement in OHQ is in 4-choice scale that a person chooses each statement according to his/her present situation. AliPour and AgahHaris (2007) showed that all the 29 statements of the test had high correlation with the total score and the Cronbach's alpha of 0.91 and the reliability of the making of the test split half was reported as 0.94.

The researchers administered several meetings about natural nutrition in four cities (Sari, Babol, Chaloos, Ramsar) of Mazandaran province in north of Iran. The participants in those meetings were members of Vegetarianism Association in North of Iran. The participants first, completed a form about their vegetarianism duration and their age, gender and education level. Then they answered to NEO-FFI and OH questionnaires. They were assured their information will be confidential. As most of vegetarians were educated and in age range of 30 to 40, the researchers decided to match these subjects with students and personnel of Azad Universities in above mentioned cities for their non-vegetarian subjects. Again, these subjects completed a form of demographic information and then answered to two mentioned questionnaires. After collecting data, the statistical procedures were as follows: Descriptive statistics such as frequency, percentages, means and standard deviation were obtained. Also, differences between groups were examined using independent sample T-test. Before that Kolmogrov-Smirnov Test was used for being normalized distribution assumption. In this study, P value lower than 0.05 was considered significant.

## 3. RESEARCH FINDINGS

### 3.1. Descriptive analysis of data

In descriptive analysis it is paid to present frequency tables in terms of percentage for gender, age and education level of the participants. Table 1, 2 and 3 represent demographic information of the groups.

Table 1: Distribution of gender in participants

		Vegetarians		Non-Vegetarians	
		Number	%	Number	%
Gender	Women	91	60.67	77	51.33
	Men	59	39.33	73	48.67
	Total	150	100.0	150	100.0

Table 2: Distribution of age in participants

		Vegetarian		Non-vegetarian	
		Number	%	Number	%
Age	20 - 30	25	16.66	44	29.33
	31 - 40	76	50.66	87	58.0
	41 - 50	35	23.33	16	10.66
	51 - 60	14	9.33	3	2.0
	Total	150	100.0	150	100.0

Table 3: Distribution of education level in participants

		Vegetarian		Non-vegetarian	
		Number	%	Number	%
Education Level	Diploma	13	8.66	3	2.0
	BA	110	73.33	139	92.66
	MA	27	18.0	8	5.33
	Total	150	100.0	150	100.0

### 3.2. Inferential analysis of data

To further investigate the differences of personality traits and happiness in vegetarians and non-vegetarians the method of independent t-test was used that the results are shown in Table 4 & 5.

Table 4: Evaluating independent T-test for personality traits in groups

Personality traits	Nutrition style	Number	Freedom degree	Mean	Standard deviation	T value	Significant level
Neuroticism	Vegetarian	150	298	24.67	11.78	3.300	0.001*
	Non-vegetarian	150		29.09	11.38		
Extraversion	Vegetarian	150	298	64.39	7.78	1.478	0.140
	Non-vegetarian	150		63.20	6.01		
Openness	Vegetarian	150	298	60.44	6.31	3.952	0.000*
	Non-vegetarian	150		56.34	11.01		
Agreeableness	Vegetarian	150	298	69.23	8.28	0.558	0.557
	Non-vegetarian	150		68.74	6.97		
Conscientiousness	Vegetarian	150	298	76.99	8.19	1.051	0.294
	Non-vegetarian	150		76.08	6.72		

\* P < 0.05

From examining table 4 it can be seen that neuroticism mean in vegetarians is equal to 24.67 and in non-vegetarians is equal to 29.09 which T value (3.300) between groups indicates this difference is statistically meaningful ( $P < 0.05$ ). Also, openness mean for vegetarians is 60.44 and for non-vegetarians is 56.34 which considering T- value (3.952) the difference between groups is significantly meaningful ( $P < 0.05$ ). Nonetheless, mean score of extraversion, agreeableness, conscientiousness and their T- values shows no meaningful difference between groups.

Table 5: Evaluating independent T-test for happiness in groups

Happiness	Nutrition style	Number	Mean	Standard deviation	Freedom degree	T value	Significant level
	Vegetarian	150	73.83	15.14	298	3.109	0.002*
	Non-vegetarian	150	69.35	9.11			

\*  $P < 0.05$

Regarding table 5 it can be seen mean score of happiness in vegetarians is 73.83 and in non-vegetarians it is 69.35 and T-value (3.109) between groups shows statistically meaningful difference ( $P < 0.05$ ).

#### 4. DISCUSSION AND CONCLUSION

The results of this study shed an important light on the vegetarianism, personality traits and happiness. In connection with the first question of this study (is there any difference in personality traits of vegetarians and non-vegetarians?) the resultant statistics indicated that there were significant differences in personality traits among vegetarians and non-vegetarians due to their diverse nutrition style. From among five factors of personality, although there was no meaningful difference in regard to extraversion, agreeableness and conscientiousness in vegetarians and non-vegetarians, openness and neuroticism average indicated significant differences between two groups. In other words, vegetarians were less neurotic and their openness was higher than non-vegetarians. This result is consistent with AzimzadehParsi et al. (2011) that found a negative and meaningful correlation between neuroticism and happiness in their study. In addition, the findings by Kazemi (2008) and Chioqueta & Stiles (2005) are consistent to present study.

Concerning these findings, we can conclude that may be vegetarians are less neurotic because of their nutrition. Because vegetable food sources are more compatible to human body for digestion and absorption and vegetarians experience less tension and anxiety due to their nutrition style. Furthermore, since they consume a wide range of diverse nuts, fruit and vegetables, they tend to experience different things and they are open to others' experiences. These findings expand understanding of a wide variety of food related behaviors, especially specific psychological processes and personality traits that affect our dietary choices beside cultural factors and may help nutrition professionals in developing strategies to work with those who want or need to change diet habits.

The second question of study was whether there is any difference between happiness of vegetarians and non-vegetarians. In other words, are vegetarians happier than non-vegetarians? Findings revealed that the happiness of vegetarians was significantly higher than non-vegetarians. Very similar results were found by Beezhold et al. (2010) that revealed the positive effect of vegetarianism and the abstinence of all kinds of meat indicated a better mood among vegetarians. The results referred to the high intake of anti oxide in vegetable food. Nonetheless, Lindemann's (2002) findings reflected opposite results. In that study, vegetarians were physically healthier but had less happiness in comparison to non-vegetarians. In explanation of these findings it should be mentioned that the reason why vegetarians had obtained higher mean score for happiness, probably it is due to the relationship between mind and body. Vegetarians have healthier body and this influences their mood and being energetic and happy.

The results of this study challenges what is known about the vegetarianism, personality traits and happiness. If we truly believe that vegetarians have higher happiness considering their nutrition style, then some kind of longitudinal designs is needed to ascertain whether vegetarians are individuals who have indeed been able to decrease their psychological distress at least to some extent, and increase their happiness by ending up

with a life style that many nutritionist and medical scientists regard as satisfactory. Having positive and happy mood increases individuals' ability for overcoming failures and difficulties in life and it prevents to be depressed and alone. Therefore, in regard to the results of present study that confirmed vegetarians are happier than non-vegetarians, it can be suggested to educate and encourage people about vegetarianism nutrition style in a proper way.

It is important to note that our findings were obtained from Mazandaran province in Iran. Iranian people are very homogeneous in religion (mostly Moslem) and race, thus, it is possible that different results would be obtained for other samples. Since, vegetarianism is pursued with different reasons future studies should validate the results by employing other psychological variables and with larger and more heterogeneous samples of participants.

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